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PATENT TRADEMARK OFFICE

DUE DATE(S) \_\_\_\_\_

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Patent

Case No.: 51806US008

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor: WORTMAN, DAVID L.

Application No.: 10/051530

Group Art Unit: 2875

Filed: January 22, 2002

Examiner: Unknown

Title: BACKLIGHT SYSTEM WITH MULTILAYER OPTICAL FILM  
REFLECTORINFORMATION DISCLOSURE STATEMENTCommissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

## CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

10-6-03

Date

Kim Elstrom  
Signed by: Kim Elstrom

Dear Sir:

Pursuant to 37 CFR §§ 1.56, 1.97, and 1.98, enclosed is a completed Form PTO-1449, citing references submitted for consideration by the Examiner. A copy of each cited reference is also enclosed. It is respectfully requested that the Examiner initial and return the enclosed Form PTO-1449 to indicate that each reference has been considered.

This Information Disclosure Statement is being mailed after receipt of a first Office Action on the merits, but prior to the mailing of a Notice of Allowance under 37 CFR § 1.311. Please charge the fee for consideration of an Information Disclosure Statement set forth in 37 CFR § 1.17(p) to Deposit Account No. 13-3723, and if necessary, please charge any additional fees, or credit any overpayment to Deposit Account No. 13-3723. One copy of this sheet marked duplicate is also enclosed.

Respectfully submitted,

10-6-03

Date

By: Stephen W. Buckingham

Stephen W. Buckingham, Reg. No.: 30,035

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Office of Intellectual Property Counsel  
3M Innovative Properties Company  
Facsimile No.: 651-736-3833

Substitute for form 1449A/PTO (modified)

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Page 1 of 8

Application Number

/0/051530

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First Named Inventor

Wortman, David L.

Art Unit

2875

Examiner Name

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**U.S. Patent Documents**

Exam. Init.*	Cite No.	Document Number	Publication Date or Issue Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Doc. Number-(Kind Code if Known)			
	A1	US- RE34,605	05/10/94	Schrenk et al.	
	A2	US- 1610423	12/14/26	Cawley	
	A3	US- 2492809	12/27/49	Marks	
	A4	US- 3124639	03/10/64	Kahn	
	A5	US- 3213753	10/26/65	Rogers	
	A6	US- 3528723	09/15/70	Rogers	
	A7	US- 3610729	10/05/71	Rogers	
	A8	US- 3647612	03/07/72	Schrenk et al.	
	A9	US- 3711176	01/16/73	Alfrey, Jr. et al.	
	A10	US- 3759647	09/18/73	Schrenk et al.	
	A11	US- 3773882	11/20/73	Schrenk	
	A12	US- 3759647	09/18/73	Schrenk et al.	
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	A14	US- 3860036	01/14/75	Newman, Jr.	
	A15	US- 4025688	05/24/77	Nagy et al.	
	A16	US- 4094947	06/13/78	Alfrey, Jr. et al.	
	A17	US- 4268127	05/19/81	Oshima et al.	
	A18	US- 4310584	01/12/82	Cooper et al.	
	A19	US- 4315258	02/09/82	McKnight et al.	
	A20	US- 4427741	12/04/84	Alzawa et al.	
	A21	US- 4446305	05/01/84	Rogers et al.	
	A22	US- 4456336	06/26/84	Chung et al.	
	A23	US- 4520189	05/28/85	Rogers et al.	
	A24	US- 4521588	06/04/85	Rogers et al.	
	A25	US- 4525413	06/25/85	Rogers et al.	
	A26	US- 4540623	09/10/85	Im et al.	
	A27	US- 4648690	03/1987	Ohe	
	A28	US- 4678285	07/07/87	Ohta et al.	

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<b>Substitute for form 1449A/PTO (modified)</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)  Page 2 of 8	<b>Application Number</b>	10/051530
	<b>Filing Date</b>	January 22, 2002
	<b>First Named Inventor</b>	Wortman, David L.
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	<b>Examiner Name</b>	Unknown
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	A29	US- 4714983	12/1987	Leng	
	A30	US- 4720426	01/19/88	Englert et al.	
	A31	US- 4729068	03/1988	Ohe	
	A32	US- 4798448	01/17/89	Van Raalte	
	A33	US- 4813765	03/21/89	Negishi	
	A34	US- 4917465	04/17/90	Conner et al.	
	A35	US- 4937134	06/26/90	Schrenk et al.	
	A36	US- 4952023	08/28/90	Bradshaw et al.	
	A37	US- 5089318	02/18/92	Shetty et al.	
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	A40	US- 5095210	03/10/92	Wheatley et al.	
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	A45	US- 5126880	06/30/92	Wheatley et al.	
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	A47	US- 5157526	10/20/92	Kondo et al.	
	A48	US- 5159478	10/27/92	Akiyama et al.	
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	A50	US- 5202074	04/13/93	Schrenk et al.	
	A51	US- 5211878	05/18/93	Reiffenrath et al.	
	A52	US- 5217794	06/08/93	Schrenk	
	A53	US- 5233465	08/03/93	Wheatley et al.	
	A54	US- 5234729	08/10/93	Wheatley et al.	
	A55	US- 5235443	08/10/93	Barnik et al.	
	A56	US- 5255029	10/19/93	Vogelely et al.	

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	A57	US- 5269995	12/14/93	Ramanathan et al.	
	A58	US- 5278694	01/11/94	Wheatley et al.	
	A59	US- 5294657	03/15/94	Melendy et al.	
	A60	US- 5303322	04/12/94	Winston et al.	
	A61	US- 5316703	05/31/94	Schrenk	
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	A83	US- 5528720	06/1998	Winston et al.	
	A84	US- 5612820	03/18/97	Schrenk et al.	

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	<b>Filing Date</b>	January 22, 2002
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	A85	US- 5629055	05/13/97	Revol et al.	
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	A87	US- 5699188	12/16/97	Gilbert et al.	
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	A91	US- 5767935	06/16/98	Ueda et al.	
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	A93	US- 5783120	07/21/98	Ouderkirk et al.	
	A94	US- 5793456	08/11/98	Broer et al.	
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	A97	US- 5825543	10/20/98	Ouderkirk et al.	
	A98	US- 5867316	2-2-99	Carlson et al	
	A99	US- 5882774	3-16-99	Jonza et al	
	A100	US- 5940149	8-17-99	Vanderwerf	
	A101	US- 5962114	10-5-99	Jonza et al	
	A102	US- 5965247	10-12-00	Jonza et al	
	A103	US- 5976424	11-2-00	Weber et al	
	A104	US- 5991077	11-23-99	Carlson et al	
	A105	US- 5999316	12-7-99	Allen et al	
	A106	US- 5999317	12-7-99	Whitney	
	A107	US- 6012820	1-11-00	Weber et al	
	A108	US- 6018419	1-25-00	Cobb, Jr. et al	
	A109	US- 6024455	2-15-00	O'Neill et al	
	A110	US- 6025897	2-15-00	Weber et al	
	A111	US- 6031665	2-29-00	Carlson et al	
	A112	US- 6045894	4-4-00	Jonza et al	

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	A113	US- 6049419	4-11-00	Wheatley et al	
	A114	US- 6057961	5-2-00	Allen et al	
	A115	US- 6053795	4-25-00	Whitney et al	
	A116	US- 6080467	6-27-00	Weber et al	
	A117	US- 6082876	7-4-00	Hanson et al	
	A118	US- 6088067	7-11-00	Willetts et al	
	A119	US- 6088159	7-11-00	Weber et al	
	A120	US- 6088163	7-11-00	Gilbert et al	
	A121	US- 6096247	8-1-00	Ulsh et al	
	A122	US- 6101032	8-8-00	Wortman et al	
	A123	US- 6111696	8-29-00	Allen et al	
	A124	US- 6111697	8-29-00	Merrill et al	
	A125	US- 6113811	9-5-00	Kausch et al	
	A126	US- 6117530	9-12-00	Jonza et al	
	A127	US- 6120026	9-19-00	Whitney et al	
	A128	US- 6124971	9-26-00	Ouderkirk et al	
	A129	US- 6157486	12-5-00	Benson, Jr. et al	
	A130	US- 6157490	12-5-00	Wheatley et al	
	A131	US- 6160663	12-12-00	Merrill et al	
	A132	US- 6179948	1-30-01	Merrill et al	
	A133	US- 6207260	3-27-01	Wheatley et al	
	A134	US- 6208468	3-27-01	Liu et al	
	A135	US- 6256146	7-3-01	Merrill et al	
	A136	US- 6288172	9-11-01	Goetz et al	
	A137	US- 6297906	10-2-01	Allen et al	
	A138	US- 6368699	4-9-02	Gilbert et al	
	A139	US- 6531230	3-11-03	Weber et al	
	A140	US- 6569515	5-27-03	Hebrink et al	

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	A141	US- 02-0064671-A1			

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		Ctry. Code	Number-KindCode (If known)				
	B1	CA	1327286	03/01/94			X
	B2	CH	218041	12/21/93			X
	B3	GE	4121861	01/16/92			X
	B4	EPO	056843	08/04/82			X
	B5	EPO	062751	10/20/81			X
	B6	EPO	469732	02/05/92			X
	B7	EPO	514223	11/19/92			X
	B8	EPO	552725	07/28/93			X
	B9	EPO	573905	12/15/93			X
	B10	EPO	597261	05/18/94			X
	B11	EPO	606939	07/20/94			X
	B12	EPO	606940	07/20/94			X
	B13	UK	2052779	01/28/81			X
	B14	JAP	4-141603	05/15/92			X
	B15	JAP	63-168604	07/12/88			X
	B16	JAP	63-181201	07/26/88			X
	B17	JAP	4-184429	07/01/92			X
	B18	JAP	5-288910	11/05/93			X
	B19	JAP	6-11607	01/21/94			X
	B20	WO	91/09719	07/11/91	PCT		X
	B21	WO	94/11776	05/26/94	PCT		X
	B22	WO	94/29765	12/22/94	PCT		X
	B23	WO	95/17303	06/29/95	PCT		X
	B24	WO	95/17691	06/29/95	PCT		X

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	B25	WO	95/17692	06/29/95	PCT		X
	B26	WO	95/17699	06/29/95	PCT		X
	B27	WO	95/19347	12/19/95	PCT		X
	B28	WO	97/01440	01/16/97	PCT		X
	B29	WO	97/01774	01/16/97	PCT		X
	B30	WO	97/32226	09/04/97	PCT		X
	B31	WO	99/36477	07/22/99	PCT		
	B32	WO	99/36804	7/22/99	PCT		
	B33	WO	00/07044	02/10/00	PCT		

#### OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Exam. Init.*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
	C1	Schrenk et al., Nanolayer polymeric optical films, Tappi Journal, pp. 169-174, June 1992
	C2	Schrenk, W. et al., "Coextruded Elastomeric Optical Interference Film", SPE Annual Technical Conference, Atlanta, GA, pp. 1703-1707 (1988).
	C3	Schrenk et al., "Coextruded Infrared Reflecting Films", 7 <sup>th</sup> Annual Meeting Polymer Processing Society, Hamilton, Ontario, Canada, pp. 222-223 (April 1991).
	C4	Schrenk et al., "Coextruded Iridescent Film", TAPPI 1976 Paper Synthetics Conf., Atlanta, GA, pp.141-145 (September 27-29, 1976).
	C5	Im, J. et al., "Coextruded Microlayer Film and Sheet", Journal of Plastic Film and Sheeting, Vol. 4, pp. 104-115 (April, 1988).
	C6	Schrenk et al., "Coextruded Multilayer Polymer Films and Sheet", Polymer Blends, Vol. 2, Ch. 15, pp. 129-165, Academic Press, Inc. (1978).
	C7	Hodgkinson, I. Et al., "Effective Principal Refractive Indices and Column Angles for Periodic Stacks of Thin Birefringement Films", J. Opt. Soc. Am. A, Vol. 10, No. 9, pp. 2065-2071 (1993).
	C8	Wu et al., "High Transparent Sheet Polarizer Made with Birefringent Materials", Jpn. J. of App. Phys., Vol 34, pp. L 997-999, part 2, No. 8A (August 1995).
	C9	Schrenk et al., "Interfacial Flow Instability In Multilayer Coextrusion", Polymer Engineering and Science, Vol. 18 (8), pp. 620-623 (June 1978).
	C10	Schrenk, W., "New Developments In Coextrusion", International Conference on Advances In Polymer Processing, New Orleans, Louisiana, (April, 1991).

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	C11	Alfrey, Jr. et al., "Physical Optics of Iridescent Multilayered Plastic Films", Polymer Engineering and Science, Vol. 9, No. 6, pp. 400-404 (November 1969).
	C12	Radford et al., "Reflectivity of Iridescent Coextruded Multilayered Plastic Films", "Reflectivity of Iridescent Coextruded Multilayered Plastic Films", Polymer Engineering and Science, Vol. 13, No.3, (May 1973); Dow Chemical Co., American Chemical Society Symposium on "Coextruded Plastic Films, Fibers, Composites", April 9-14, 1972.
	C13	Weber, M., "23:3: Retroreflecting Sheet Polarizer", SID 92 Digest, pp. 427-429 (1992)
	C14	Weber, M., "P-61: Retroreflecting Sheet Polarizer", SID 93 Digest, pp. 669-672 (1973).
	C15	Weber, M., "Giant Birefringement Optics in Multilayer Polymer Mirrors, SCIENCE, March 31, 2000, Vol. 287, No. 5462, pages 2451-2456
	C16	Zang, D. Y., "Giant anisotropies in the dielectric properties of quasi-epitaxial crystalline organic semiconductor thin films, 1991 American Institute of Physics, Appl. Physics, Lett. 59, August 12, 1991, Pages 823-825.
	C17	Boese, D., "Chain Orientation and Anisotropies in Optical and Dielectric Properties in Thin Films of Stiff Polyimides," Journal of Polymer Science, Part B, Polymer Physics, Vol. 30, 1321-1327

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